REMARKS

Responsive to the office action mailed February 11, 2003, Applicants provide the following remarks. Although this response is being filed May 12, 2003, a petition for extension of time is not required since the due date of May 11, 2003 fell on a Sunday. Additionally, claims 11-13 have been added. No new claims fees are due for the additional claims presented herewith. Thirteen (13) claims remain pending in the application: claims 1-13. Reconsideration of claims 1-10 in view of the remarks below and consideration of new claims 11-13 is respectfully requested.

By way of this amendment, Applicants have made a diligent effort to place the claims in condition for allowance. However, should there remain any outstanding issues that require adverse action, it is respectfully requested that the Examiner telephone the undersigned at (858) 552-1311 so that such issues may be resolved as expeditiously as possible.

1. Claims 1, 2, 6 and 8 stand rejected under 35 U.S.C. 102(b), as being anticipated by U.S. Patent No. 5,340,997 (Kuo).

The standard for anticipation under 35 U.S.C. § 102 is the every element test whereby "anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration." *W.L. Gore & Associates v Garlock, Inc.*, 220 USPQ 303,313 (Fed. Cir. 1983), *cert denied*, 469 U.S. 851 (1984).

Kuo describes a field emission microelectronic device 100 in which electrons are released from a single emitter 108 in response to the application of the appropriate voltage at the gate 106, the isolator 114 and the collector 112. As illustrated in FIGS. 2, 5, 8 and 10, the electrons have a trajectory from the emitter 108 to the collector 112. The isolators 114, 164, 230 and 308 create electrostatic enclosures 144, 194, 194 and 394, respectively, which help to limit the spread of electrons from the intended trajectories.

In contrast, as recited in claim 1, the in-laid linear isolation barriers provide field isolation between respective ones of the electron emitter lines. Kuo only describes a single emitter line 108, not multiple emitter lines. Furthermore, Kuo does not describe how the device 100 would be arranged if there were multiple emitter lines. And, even if there were multiple emitter lines, Kuo does not describe how field isolation would occur therebetween. However, given the single emitter line of Kuo, as clearly seen in FIGS. 2, 5, 8 and 10, any occurring field isolation of the electrostatic enclosure is the result of the physical arrangement of the gate 106, the isolator 114 and the collector 112 and the application of the appropriate voltages thereto, not the result of the structure of the substrate 102 containing the emitter line 108. That is, the structure of the substrate 102 containing the emitter line 108 is designed to position the tip of the emitter line at the desired proximity to the gate 106 in order to cause the electron emission, while the isolators and other physical arrangement may cause field isolation.

Therefore, since Kuo does not disclose or suggest in-laid linear isolation barriers that provide field isolation between respective ones of the electron emitter lines, as is recited in claims 1, 2, 6 and 8, Kuo does not disclose *every element* of claims 1, 2, 6 and 8. Therefore, Kuo does not anticipate claims 1, 2, 6 and 8, and it is therefore respectfully submitted that the rejection is overcome and should be withdrawn.

2. Claims 1, 2, 3, 7, 9 and 10 stand rejected under 35 U.S.C. 103(a), as being unpatentable over U.S. Patent No. 5,811,926 (Novich) in view of U.S. Patent No. 6,146,230 (Kim et al.).

With respect to claim 1, Novich discloses an emission display panel having a spacer unit that provides mechanical support against atmospheric and other externally applied pressure. As is conventionally known and similar to that described in FIGS. 1-3 and the Background section of Applicant's specification, the device 522

includes a substrate 530 including a conductive layer 542 formed thereon. Additionally, an insulative layer 572 is formed on top of the substrate 530 (and the conductive layer 542) (see col. 6, lines 20-23 of Novich). A gate electrode 576 is formed on top of the insulative layer 572.

In contrast, as recited in claim 1, the in-laid linear isolation barriers are formed within the thickness of a top surface of the cathode substrate and are adapted to contain electron emitter lines. The isolation barriers of Novich are not "in-laid" since they are not formed within the thickness of the top surface of the substrate, i.e., Novich's barriers are an insulative layer formed over the top surface of the substrate. Furthermore, there is no teaching or suggestion within Novich that such a barrier be formed by etching out or otherwise removing a portion of the thickness of the top surface of the cathode substrate. Also, the isolation structure of Novich is not linear in that the insulative layer surrounds the emitter tips 556 (see col. 6, lines 20-23 of Novich), such that the insulative layer 572 forms a circular well about each emitter tip 556, not an in-laid linear isolation barrier, as is recited.

Kim teaches a method of producing an electron emitter and does not further teach or suggest in-laid linear isolation barriers that are formed within a top surface of the cathode substrate.

Therefore, Novich and Kim et al., alone or in combination, do not render claim 1 obvious. Since claims 2-3 and 7 are dependent upon claim 1, it is respectfully submitted that the rejection to claims 1-3 and 7 is overcome and should be withdrawn.

With respect to claim 9, Novich does not disclose linear in-laid means for isolating linear electron fields emitted from adjacent emitter lines of a cathode substrate of the field emission display. As presented above, the means for isolation of Novich, i.e., the insulative layer 572 having the circular openings to surround the emitter tips 556, are not linear. The means of Novich are circular in that they surround each emitter tip. Furthermore, Novich's means are formed on top of a cathode substrate, they are

not in-laid, as recited in claim 9. Furthermore, there is no suggestion within Novich that the isolation means be linear or in-laid. Kim does not provide any further teaching of any such linear, in-laid means. Thus, it is respectfully submitted that the combination of Novich and Kim does not render claims 9 and 10 obvious and that the rejection should be withdrawn.

3. Claims 4 and 5 stand rejected under 35 U.S.C. 103(a), as being unpatentable over U.S. Patent No. 5,340,997 (Kuo) in view of U.S. Patent No. 5,019,003 (Chason).

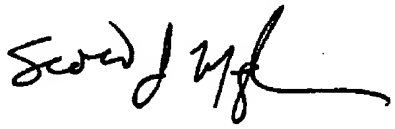
Claims 4 and 5 depend from claim 1. As presented above, Kuo does not disclose or suggest that suggest in-laid linear isolation barriers that provide field isolation between respective ones of the electron emitter lines. Chason teaches a field emission device having preformed emitter objects 201 held in position with a bonding agent 101 on a substrate 100, and provides no further teaching regarding in-laid isolation barriers. Thus, it is respectfully submitted that the combination of Kuo and Chason does not render claims 4 and 5 obvious and that the rejection should be withdrawn.

4. Newly submitted claims 11-13 are believed to be allowable because they are directed to that which is not shown or suggested in the prior art. Support for new claims 11 and 13 may be found, inter alia, at page 11, lines 23-24 and FIG. 8. Support for new claim 12 may be found, inter alia, in FIGS. 5 and 8.

CONCLUSION

Applicants submit that the above amendments and remarks place the pending claims in a condition for allowance. Therefore, a Notice of Allowance is respectfully requested.

Respectfully submitted,



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